



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : <b>C12N 9/00</b>		<b>A2</b>	(11) International Publication Number: <b>WO 00/32756</b>
			(43) International Publication Date: 8 June 2000 (08.06.00)
(21) International Application Number: <b>PCT/US99/28354</b>		(81) Designated States: AE, AL, AU, BA, BB, BG, BR, CA, CN, CR, CU, CZ, DM, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 1 December 1999 (01.12.99)			
(30) Priority Data: 60/110,602 2 December 1998 (02.12.98) US 60/127,111 31 March 1999 (31.03.99) US			
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(54) Title: PLANT DIACYLGLYCEROL ACYLTRANSFERASES

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SEQ ID NO:25 MG-----DRGGA-----GSSRRRTGSRVS----VQGGSGPKVEEDEVDAVVS
SEQ ID NO:26 MAILDSAGVTTVTENGGEFVDLRLRRRKSRSDDSSNGLLLSGSDNNSPDDVGAPADV
SEQ ID NO:02 MAILDSAGVTTVTENGGEFVDLRLRRRKSRSDDSSNGLLLSGSDNNSPDDVGAPADV
SEQ ID NO:08 -----
SEQ ID NO:14 MVGSDGDG-----DGGGGEAHAGGPRRRAGQ-----LRGLRDEAAGSPRRPRR
SEQ ID NO:16 MAISDEPESVATA-----LNHSSLRRRPSATSTAGLFNSPETTTDSSGDDLAKDSGSD
SEQ ID NO:22 MSKGNPDPLP-----GSFLPSHGPPPKPKTPPRTFRNLPSSTHGPAPSVAAATAT
1 60

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SEQ ID NO:25 PDLGAGGDAPAPAPAPAHTRDKDGRTSVGDG-----YW---DLRCHRLQD
SEQ ID NO:26 DRIDSVVNDDAQGTANLAGDNNGGDNGGGRGGGEGRGNADATFTYRPSV-PAHRRARE
SEQ ID NO:02 DRIDSVVNDDAQGTANLAGDNNGGDNGGGRGGGEGRGNADATFTYRPSV-PAHRRARE
SEQ ID NO:08 -----
SEQ ID NO:14 PRPRG---GDSNGRSVLRPGG-----GGGRGGGGDFS---AFTFRAA-APVHRKAKE
SEQ ID NO:16 DSINS---DDAAVNSQQQNEK-----QDTDFSVLKFAFYRPSV-PAHRKVKE
SEQ ID NO:22 TP-----PSASAAPLPPTVHGEAAH---GAAAAARRD-----ALLPGVGAHRRVKE
61 120

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SEQ ID NO:25 SLFSSDSGFSNYR-GILNWCVMILSNARLFLENLIKYGILVDP-IQVVSLFLKDPYSW
SEQ ID NO:26 SPLSSDAIFKQSHAGLNLGVVLIAVNSRLIENLMKYGWLIRTDWFSSRSRLRD---W
SEQ ID NO:02 SPLSSDAIFKQSHAGLNLGVVLIAVNSRLIENLMKYGWLIRTDWFSSRSRLRD---W
SEQ ID NO:08 -----F---NATSLRD---W
SEQ ID NO:14 SPLSSDAIFKQSHAGLNLGVVLIAVNSRLIENLMKYGLLIRAGFWFNDKSLRD---W
SEQ ID NO:16 SPLSSDTIFRQSHAGLNLGVVLIAVNSRLIENLMKYGLIKSGFWFSSKSLRD---W
SEQ ID NO:22 SPLSSDAIFRQSHAGLNLGVVLIAVNSRLIENLMKYGLLIRAGFWFSARSLGD---W
121 180

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## (57) Abstract

This invention relates to an isolated nucleic acid fragment encoding a diacylglycerol acyltransferase. The invention also relates to the construction of a chimeric gene encoding all or a portion of the diacylglycerol acyltransferase, in sense or antisense orientation, wherein expression of the chimeric gene results in production of altered levels of the diacylglycerol acyltransferase in a transformed host cell.